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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/517,834
Filing Date: July 20, 2005
Appellant(s): BLACKWOOD ET AL.

Anthony J. Canning
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/28/2009 appealing from the Office action mailed 05/11/2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

WO 01/17834 A1	Beck, Andrew	03-2001
5027529	CRAMER ET AL.	7-1991

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck et al. (WO 01/17834) in view of Cramer et al. (US 5,027,529).

Regarding **claim 1, 10 and 12**, Beck discloses a vehicle air supply system (fig. 2) having a compressor (12), an air dryer (14), a reservoir (18) **adapted to** receive air from the compressor via the air dryer and control means (20) **operable to** cause standard regeneration of the air dryer when a predetermined system condition is met (abstract), the control means also being **operable to** cause an intermediate regeneration of the air dryer in advance of the predetermined system condition being met (see col. 2, lines 14-23) if said system condition is not met within a predetermined time period, wherein the control means includes a governor **adapted to** cause the standard regeneration and a governor bypass **adapted to** cause the intermediate regeneration (col. 2, lines 24-27).

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Beck discloses all claimed limitations as set forth above but fails to disclose a control means also selectively cause and inhibit the regeneration depending upon air supply requirements as claimed. However, Cramer discloses a compressed air system where a control unit enabling and disabling of the in response to pressure level variations in the system and it also responds to compressor disabling by causing the system air dryer to regenerate or purge for a predetermined time period (please see the abstract; figs. 1-2; see also col. 1, lines 18-23, lines 35-40, col. 1, line 64 to col. 2, line 9, col. 2, lines 13-17, col. 4, lines 7-18, col. 4, line 61 to col. 5, line 9 and col. 6, lines 11- 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide such control means taught by Cramer in the system of Beck in order to assure that the purge valve will not remain open longer than necessary to regenerate the desiccant, and also assures that the air dryer is purged at regular intervals, provided that the pressure level in the reservoir remains above a minimum safe pressure level thus making the system more reliable.

Re-claim 3, please see col. 1 lines 58-60 of Beck '463.

Re-claim 4, please see col. 1 lines 60-63 of Beck '463.

Re-claim 5, please see col. 1 line 63 of Beck '463.

Re-claim 6, please see col. 2, lines 1-3 of Beck '463.

Re-claim 7, please see col. 2, lines 3-6 of Beck '463.

Re-claim 8, please see col. 2, line 6 of Beck '463.

Re-claim 9, please see col. 2, lines 9-10 of Beck '463.

(10) Response to Argument

A. Claim 1 is unpatentable over Beck in view of Cramer because the combination of Beck and Cramer teaches each and every element of the claims.

Appellant argues that neither Beck nor Cramer, taken either alone or in combination, teach or suggest the control means being operable to prevent the intermediate regeneration.

The Examiner respectfully disagrees. As seen on page 6 of the appeal brief, the appellant stated:

“Consequently, the control means acts to prevent the possibility of an intermediate regeneration occurring by the methods described in the present specification, i.e., **suspending or modifying the operation of the time which normally causes the intermediate regeneration**, or blocking the intermediate regeneration signal to the air dryer (see the specification, e.g., page 5, 11. 21-32).”

In contrast to the referred specification regarding suspending or modifying the operation of the time which normally causes the intermediate regeneration, *Beck* clearly discloses a timer 26 that may be activated when the compressor comes on load and be suspended/reset when the compressor comes off load (see the specification of *Beck*, page 8, lines 17-21) (please further note that the paragraph 3 or lines 21-32 of page 5 of the specification of the present application is identical to the paragraph 3 or lines 17-21 of page 8 of the specification of *Beck*.). Therefore, it is clear, the control means of *Beck*

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being operable to suspend/reset the timer when the compressor comes off load and thus an intermediate regeneration is to be inhibited (see the specification of *Beck*, page 2, line 27 to page 3, line 2). For the reasons set forth above, the Examiner respectfully submits that *Beck* does indeed teach “the control means further being operable to prevent the intermediate regeneration,” and thus, meets the noted limitation.

Appellant further argues that *Beck* and *Cramer*, taken either alone or in combination, fail to teach or suggest **a selective control means** as recited in the independent claim 1.

The Examiner respectfully disagrees. As set forth above *Beck* discloses the control means operable to suspend/reset the timer when the compressor comes off load and thus an intermediate regeneration is to be inhibited, but *Beck* merely discloses control means. In other word the control means of *Beck* is not **selectively** operable. *Beck* is thus reliant on *Cramer* for disclosing this feature or a control means that is **selectively** operable. *Cramer* discloses a compressed air system (see abstract and see also Fig. 1) where an electronic control unit enabling and disabling of the compressor in response to pressure level variations in the system and it also responds to compressor disabling by causing the system air dryer to regenerate or purge for a predetermined time period (see col. 2, lines 1-9). Thus, the Examiner respectfully submits that using of such selective electronic control unit assures that the purge valve will not remain open longer than necessary to regenerate the desiccant, and also assures that the air dryer is purged at regular intervals, provided that the pressure level in the reservoir remains

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above a minimum safe pressure level thus making the system more reliable. At least for the above reasons, the Examiner respectfully submits that *Beck* and *Cramer*, taken in combination indeed teach or suggest “the control means is operable to selectively cause and prevent the intermediate regeneration depending upon air supply requirements,” and thus, meets all the limitations of at least independent claim 1.

Appellant further argues that *Beck* and *Cramer*, taken either alone or in combination, fail to teach, disclose, or suggest all the structural limitations recited in the present claims.

The Examiner respectfully disagrees and it is important to note that there is no support or statement disclosed by the Appellant on page 8 of the present Appeal Brief, on what structural limitations are not disclosed by the applied references of *Beck* and *Cramer*. The Examiner further notes that the reference of *Beck* alone discloses (see Fig. 1) each and every structural limitation as claimed. The reference of *Beck* discloses a vehicle air supply system (fig. 2) having a compressor (12), an air dryer (14), a reservoir (18) adapted to receive air from the compressor via the air dryer and control means (20) operable to cause standard regeneration of the air dryer when a predetermined system condition is met.

(11) Related Proceeding(s) Appendix

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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Mahbubur Rashid/

Examiner, Art Unit 3657

/Bradley T King/

Primary Examiner, Art Unit 3657

Conferees:

Robert Siconolfi /RS/

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